

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,424	04/22/2005	Kensaku Fujii	0080-0234PUS1	3734
2292 7590 06/29/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER MAKI, STEVEN D	
			ART UNIT 1733	PAPER NUMBER
			NOTIFICATION DATE 06/29/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.	Applicant(s)	
	10/532,424	FUJII ET AL.	
	Examiner	Art Unit	
	Steven D. Maki	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>041007</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1733

1) Applicant is advised that should claim 12 be found allowable, claim 13 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Claims 12 and 13 have the same scope. Claim 13 describes the intended use of the tire instead of an additional limitation of the tire.

2) The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3) Claims 13, 19, 20, and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 13, it is unclear what additional limitation is being required.

As to claims 19 and 22, there is no antecedent basis for "the vicinity" and as such the claimed distance between the hole and the wear indicating portion is uncertain.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) **Claims 12-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 608 (JP 55-110608) in view of Soviet Union (SU 408333),**

Art Unit: 1733

Shimura (US 2002/0036039) and French (US Re 30518) and optionally Slingluff (US 5,980,668).

Japan 608 discloses a tire with a tread comprising a stepped hole 17 for indicating wear. Japan 608 describes using a tetragonal shape for the stepped hole. Japan 608 does not appear to recite using a different shapes for the upper and lower portions of the stepped hole.

Soviet Union discloses a pneumatic tire having a tread comprising a wear indicator in the form of stepped pyramid for permitting tire wear to be assessed. Soviet Union teaches that one of the projections can have the form of the stepped pyramid. Alternatively, Soviet Union teaches an opening in one of the projections may have the shape of a stepped pyramid. In figure 4, each step has a square shape. In figure 5, each step has a circular shape. In figure 6, the first step has a circular shape whereas the remaining steps have a polygonal shape.

Shimura discloses a pneumatic tire having a tread comprising a mark portion in the form of a "hole" wherein the surface shape of the mark portion changes a surface shape as wear progresses. In the embodiment of figures 7a-7d the shape of the hole changes from a square to a rectangle. In the embodiment of figures 8b-8d, the shape of the hole changes from a circle to an ellipse. Shimura teaches that the tread wear amount is easily discernable by only checking a change of the surface shape of the mark portion.

Art Unit: 1733

French discloses a pneumatic tire with a tread comprising a hollow wear indicator whose contour changes from a first pattern to a second pattern to indicate wear. See figures 2-4.

As to claims 12-18 and 21, it would have been obvious to one of ordinary skill in the art to provide the upper and lower portions of Japan 608's wear indicating hole with different shapes such as circle, square, ellipse, etc. since Soviet Union, Shimura and French suggest facilitating visual monitoring of a wear indicator in a tire tread by providing the wear indicator such that the shape of the wear indicator changes with wear. In particular, it would have been obvious to one of ordinary skill in the art to provide the hole of Japan 608 such that one step (perimeter edge) comprises straight lines and the other step (other perimeter edge) comprises curved lines since Soviet Union shows facilitating visual identification of different steps of a wear indicator by providing one step with straight lines and another step with curved lines (see figure 6).

In claim 12, the description of "rotation timing indication" before "hole" relates to intended use and fails to require hole structure not suggested by the above applied prior art. Claim 21 fails to require a positive step of changing the position of the tire on a vehicle. In any event: it would have been obvious to use a stepped hole to indicate timing for rotation of a tire since (1) Japan 608 teaches using a stepped hole to indicate wear of tire tread and (2) Slingluff suggests using holes of different depths to indicate when the tire has worn to a level where it is due for rotation to another wheel position on a vehicle. In the response filed 4-10-07, applicant states "JP '608 discloses that a tread comprises a stepped hole 17 with a tetragonal shape for indicating wear. When a first

Art Unit: 1733

step of the hole disappears, a first rotation is carried out and when a second step of the hole disappears, a second rotation is carried out." Page 8 of response filed 4-10-07.

Hence, the applied prior art to Japan 608 and the optional Slingluff teaches using the stepped hole of Japan 608 as a "rotation timing indication hole".

As to claims 14-18, Soviet Union teaches circle shape and polygon shape (figure 6), Japan 608 teaches a tetragon shape, and Shimura teaches a circle shape, square shape and ellipse shape. Shimura also teaches one shape being inscribed in another shape (figures 8b-8d) in order to maximize the size of the lower shape. With respect to inscribing, also note the location of the circle within the polygon in figure 6 of Soviet Union. It is emphasized that Soviet Union expressly shows using the combination of a rounded shape and a polygon shape.

6) Claims 19, 20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 608 in view of Soviet Union, Shimura and French and optionally Slingluff as applied above and further in view of Japan 684 (JP 59-025684 Y2).

As to claims 19, and 22, it would have been obvious to provide Japan 608's tire with a wear indicating portion as claimed in view of Japan 684's suggestion to provide a tire tread with wear indicating portions including a projection and/or depression (abstract and figures).

As to claim 20, it would have been obvious to use six pairs of holes arranged at intervals in a circumferential direction of the tire in view of Slingluff's suggestion to

Art Unit: 1733

locate groups of rotation timing indicating holes at uniform intervals around the circumference of the tire.

Remarks

7) Applicant's arguments filed 4-10-07 have been fully considered but they are not persuasive.

Applicant argues that Japan 608 does not disclose using different shapes for the upper and lower portions of the stepped hole. This argument is not persuasive since the secondary art to Soviet Union, Shimura and French provide ample suggestion to use different shapes at different depths of a wear indicator. It is again emphasized that Soviet Union expressly shows using the combination of a rounded shape and a polygon shape. See figure 6.

Applicant argues that Japan 608 does not disclose the combination of such a hole and a wear indicator. This argument is not persuasive. First, "wear indicating portion" is generic to "rotation timing indication hole". Second, Japan 684 suggests locating wear indicators in "the vicinity" of each other (figure 1a).

8) No claim is allowed.

9) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1733

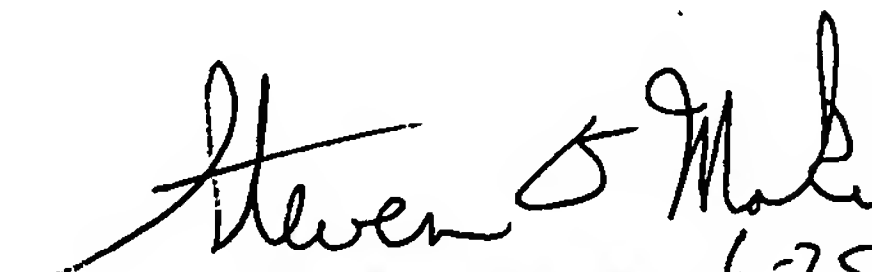
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven D. Maki
June 24, 2007


STEVEN D. MAKI
PRIMARY EXAMINER
6-25-07